

## UNIT-V

S.No	Questions	BT	CO	PO
<b>Part – A (Short Answer Questions)</b>				
1	What are the components of a smart sensor?	1	5	1,2
2	List the advantages of smart sensors.	2	5	1,2
3	Define primary sensor.	2	5	1,2
4	What is the function of a primary sensing element?	1	5	1,2
5	What is sensor excitation?	2	5	1,2
6	Why is excitation required in sensors?	2	5	1,2
7	Why is amplification required in sensor systems?	2	5	1,2
8	Define sensor signal conditioning.	2	5	1,2
9	Define compensation in sensors.	2	5	1,2
10	What is temperature compensation?	1	5	1,2
<b>Part – B (Long Answer Questions)</b>				
11	a) Explain the concept, architecture, and advantages of smart sensors.	2	5	2,3
	b) Discuss the components of a smart sensor system.	2	5	2,3
12	a) Explain amplification techniques used in sensor systems.	2	5	2,3,4
	b) Discuss different types of amplifiers used in instrumentation	2,3	5	2,3
13	a) Explain information coding techniques in smart sensors.	2	5	2,3
	b) Discuss digital signal processing in sensor systems.	3,4	5	3,4
14	a) Explain various compensation techniques used in sensors.	2	5	2,3
	b) Discuss temperature compensation methods in measurement Systems.	2	5	2,3
15	a) Explain IEEE 1451 standard for smart sensor interfaces.	2,3	5	2
	b) Discuss Transducer Electronic Data Sheet (TEDS) and its Applications.	4,5	5	3,4,5